CLAIMS

What is claimed:

1. A repeater unit for mounting to electrically powered fixtures used for providing power to common electrical devices, while maintaining functionality of said fixtures, said repeater unit comprising:

a transceiver unit;

a first power supply electrically coupled to said transceiver unit; and

a housing unit for housing the transceiver and first power supply, and for mechanically cooperating with said electrically powered fixture, and

said housing unit mechanically cooperates with said electrically powered fixture, and wherein said first power supply also being electrically coupled to said electric power associated with said electrically powered fixture.

2. A repeater unit in accordance with Claim 1, wherein said first power supply includes a rechargeable power storage module, said module being recharged by said electrical power when supplied to said electrically powered fixture.

3. A repeater unit in accordance with Claim 1, wherein said first power supply includes a rechargeable power storage cell and a power charger, said power charger recharging said rechargeable power storage cell when electric power is supplied to said electrically powered fixture.

4. A repeater unit in accordance with Claim 1, wherein said housing unit further includes mating structure for providing power to said common electrical devices.

5. A repeater unit in accordance with Claim 1, wherein said mating structure further comprises a first mating structure for mechanically installing into said electrically powered fixture.

6. A repeater unit in accordance with Claim 1, wherein said mating structure further comprises a second mating structure for maintaining said electrically powered fixture functionality.

7. A repeater unit in accordance with Claim 1, wherein said first power supply is powered-on when said electrically powered fixture is powered-off.

8. A repeater unit in accordance with Claim 1, wherein said first power supply is powered-off when said electrically powered fixture is powered-on.

9. A repeater unit in accordance with Claim 1, wherein said first power supply is being recharged when said existing electrical fixture is powered-on.

10. A repeater unit in accordance with Claim 1, wherein said first power supply is adapted to provide continuous power to said electrically powered fixture even when electrical power is unavailable to the fixtures.

11. A repeater unit in accordance with Claim 1, wherein said electrically powered fixture is located in an apartment building and a transducer sends a signal to said electrically powered fixture.

12. A repeater unit in accordance with Claim 1, wherein said transceiver unit receives a signal from at least one transducer and re-transmits said signal to a base station.

13. A repeater unit in accordance with Claim 1, wherein said housing unit is adapted to insert into an exit sign.

14. A repeater unit which replaces a building accouterment, which comprises:
a transceiver for receiving and re-transmitting a signal;
a first power supply electrically connected to said transceiver unit; and
a housing unit for housing the transceiver and power supply,
whereby said housing unit is adapted to replace said building accouterment while maintaining functionality of said building accouterment.

15. A repeater unit in accordance with Claim 14, wherein said building accouterment is a ceiling tile.

16. A repeater unit in accordance with Claim 14, wherein said building accouterment is a heating ventilation and air conditioning (HVAC) grill.

17. A repeater unit in accordance with Claim 14, wherein said building accouterment is a ceiling speaker.

18. A method for relaying a transducer signal to a base station comprising:

housing a transceiver and first power supply in a housing having mating structure for mounting to existing electrically powered fixtures used for providing power to common electrical devices;

mechanically connecting the housing unit to said existing electrically powered fixture; and

electrically connecting the transceiver and first power supply to a second power supply associated with said existing electrically powered fixture;

receiving a signal;

transmitting a signal;

when power is available from the second power supply, providing power to said transceiver circuit from said power supply, and for recharging the first power supply; and

when power is not available from said second power supply, providing said power to said transceiver circuit from said first power supply.